

Application No. 10/666,048
Response dated January 24, 2008
Reply to Office Action of April 6, 2007

IN THE CLAIMS:

1. (Original) Thermally modified carbon blacks comprising a particle size of between 7nm to 500nm and an oil adsorption number between 30 to 300 ml/100g, for use in curing bladders in tire manufacture, which, in compounds, exhibit improved thermal conductivity and increased fatigue life when compared to conventional bladder compounds.
2. (Original) The thermally modified carbon blacks in claim 1, wherein the carbon black is produced by a continuous electrothermal furnace treatment process.
3. (Original) The thermally modified carbon blacks in claim 1, wherein the thermally modified carbon blacks are used in combination with furnace blacks.
4. (Original) The thermally modified carbon blacks in claim 1, wherein when used in curing bladders, replace acetylene blacks and conventional carbon blacks.
5. (Currently amended) An improved curing bladder ~~compound composition~~, comprising thermally modified carbon blacks having a particle size of between 7nm to 500nm and an oil adsorption number between 30 to 300 ml/100g, which, when combined with furnace blacks, exhibit improved thermal conductivity and increased fatigue life when compared to conventional bladder compounds.
6. (Original) The improved curing bladder compound in claim 5, wherein the bladder compound provide curing bladders with increased service life.
7. (Original) A thermally modified carbon black, produced by a continuous electrothermal furnace treatment process, for use in curing bladders in tire manufacture, which exhibit improved thermal conductivity and increased fatigue life when compared to conventional bladder compounds.
8. (Original) The thermally modified carbon black in claim 7, comprising a particle size of between 7nm to 500nm and an oil adsorption number between 30 to 300 ml/100g.
9. (Original) Thermally modified carbon blacks, produced by a continuous electrothermal furnace treatment process, the blacks having a particle size of between 7nm to 500nm and an oil adsorption number between 30 to 300 ml/100g, for use in curing bladders in tire manufacture, which exhibit improved thermal conductivity when compared to conventional

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bladder compounds.

10. (Original) The thermally modified carbon blacks in claim 9, wherein the conventional bladder compounds include acetylene black.

11. (Original) The thermally modified carbon blacks in claim 9, wherein the blacks also improve the fatigue life of the compound.

12. (New) An improved carbon black composition, comprising thermally modified carbon blacks having a particle size of between 7nm to 500nm and an oil adsorption number between 30 to 300 ml/100g, which, when combined with furnace blacks, exhibit improved thermal conductivity and increased fatigue life when compared to conventional bladder compounds.

13. (New) The composition in claim 12, wherein the composition is used in a curing bladder of the type used in the manufacture of vehicle tires.